

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Review of the Commission’s Rules Governing the) WT Docket No. 17-200
896-901/935-940 MHz Band)

To: The Commission

**COMMENTS
OF THE
ENTERPRISE WIRELESS ALLIANCE**

The Enterprise Wireless Alliance (“EWA” or “Alliance”), in accordance with Section 1.415 of the Federal Communications Commission (“FCC” or “Commission”) rules, is pleased to submit its comments in response to the Notice of Proposed Rulemaking in this proceeding.¹ EWA, jointly with pdvWireless, Inc. (“PVD”), proposed a realignment of the Part 90 896-901/935-940 MHz band (“900 MHz Band”) to create a private broadband option for industrial users more than four years ago.² The Alliance believed then and is more firmly convinced today that adoption of rules consistent with the NPRM will allow its members and other Business/Industrial/Land Transportation (“B/ILT”) entities to drive productive use of the 900 MHz Band to a significantly higher level through a combination of broadband and narrowband systems as determined by the particular requirements of individual licensees. The NPRM proposes a transition process, as well as licensing and technical rules, that balance the interests of incumbents that wish to continue operating narrowband facilities and industrial entities whose needs demand access to the greater functionality of private broadband networks. EWA

¹ *Review of the Commission’s Rules Governing the 896-901/935-940 MHz Band*, WT Docket No. 17-200, Notice of Proposed Rulemaking, 84 FR 12987 (Apr. 3, 2019) (“NPRM”).

² See *Wireless Telecommunications Bureau Seeks Comment on Enterprise Wireless Alliance and Pacific DataVision, Inc. Petition for Rulemaking Regarding Realignment of 900 MHz Spectrum*, RM-11738, Public Notice, 29 FCC Rcd 14424 (WTB MD 2014) (“EWA/PDV Petition”).

commends the Commission for adopting the NPRM and urges it to proceed as expeditiously as possible to adopt rules consistent with the industry's need for a private broadband option.

I. INTRODUCTION

EWA has been active in this proceeding from the outset and has worked collaboratively with PDV in recommending and refining rules intended to create a 900 MHz Band private broadband option. EWA did so because it recognizes that the worldwide drive toward broadband services for consumers is equally compelling for its industrial members. All businesses need low latency broadband. Some non-critical business applications can be addressed on commercial networks where they compete for capacity with teens (and now adults) playing video games, streaming movies, and tweeting endlessly. But other industrial use cases demand broadband that is more robust, reliable, resilient, secure than a network designed to address consumer demands. Service also must be available where American businesses operate, which sometimes is outside the footprint of commercial carriers. It must be capable of supporting a cost-effective network that can address both fixed and mobile requirements, and therefore must be in a band below 1 GHz. The 900 MHz Band realignment proposed by the FCC is optimally suited for filling this gap in industrial America's communications toolbox, while maintaining the option for continued narrowband operations.

II. THE NPRM STRIKES A REASONABLE BALANCE IN ADDRESSING BROADBAND AND NARROWBAND REQUIREMENTS.

In prior stages of this multi-year proceeding, EWA has filed jointly with PDV. Its decision to file separately in this instance is not based on a disagreement with PDV's positions as set out in its Comments filed last week. Rather, the timing of the Alliance's Board of Directors meeting dictated that EWA would require the full Comment period afforded by the Commission to prepare its filing. There also are matters of specific importance to the Alliance's members that

EWA believes require particular emphasis. Thus, the Alliance incorporates the PDV Comments by reference, as refined by the Comments below.

A. The Need for Private Broadband Extends Beyond Utilities and CII Entities

EWA's membership includes companies from virtually every segment of the American economy. It represents the wireless communications interests of major manufacturers of a wide variety of goods, airlines, overnight delivery services, farmers, utilities, pipelines, sports venues, entertainment facilities, schools, hospitals, and just about every other piston in America's industrial engine. It has seen their communications requirements evolve from simple base/mobile systems to extensive trunked and data delivery networks. Many have migrated from analog to digital technology and have taken advantage of the array of wireless devices and applications that allow them to run their businesses ever more efficiently and safely. For some, private broadband networks will be the next step in this evolutionary progression. Realignment of the 900 MHz Band will make that a realistic option for those businesses.

Some of these companies are utilities and other entities that are classified as "critical infrastructure industry" ("CII") in the FCC rules.³ But as EWA has emphasized previously, that definition fails to include other businesses whose products and services are equally vital to the nation. In its opinion, the better CII definition is that used by the Department of Homeland Security ("DHS"), which includes "the physical and cyber systems and assets that are so vital to the United States that their incapacity or destruction would have a debilitating impact on our physical or economic security or public health or safety."⁴ These include economic sectors beyond those in the FCC's CII definition such as transportation (for example, airlines and trucking operations in addition to railroads), critical manufacturing, food and agriculture, financial services, and commercial facilities, which DHS describes as a wide range of business,

³ 47 C.F.R. § 90.7.

⁴ See <https://www.dhs.gov/cisa/critical-infrastructure-sectors>.

commercial, residential, and recreational facilities where large numbers of people congregate. It is this universe of B/ILT entities that has expressed the need for private broadband options that do not exist today and that EWA expects to take advantage of the opportunity presented at 900 MHz. Utilities and other traditional CII users undoubtedly will be among those deploying private broadband facilities, but they will not be the only enterprise entities doing so.

B. The Initial Band Realignment Should Provide For a 3/3 Megahertz Broadband Service

The NPRM proposes a 3/3 megahertz broadband service within the 5/5 megahertz 900 MHz Band, thereby reserving a 1.5/1.5 megahertz segment below and a .5/.5 megahertz segment above the broadband segment for continued narrowband operations. This approach is consistent with the EWA/PDV Petition, and EWA urges the Commission to retain that band configuration.

Some parties have suggested that the FCC, instead, should designate the entire 900 MHz Band for broadband operations. EWA appreciates that a 5/5 megahertz broadband channel would provide a geometric increase in capacity beyond a 3/3 megahertz channel without a significantly greater cost of deployment. It also recognizes that there may be users whose requirements cannot be met on the smaller channel and who will, therefore, forego the opportunity of deploying broadband at 900 MHz. Nonetheless, EWA considers the proposed 3/3 megahertz broadband segment the appropriate course at this time.

B/ILT entities have limited spectrum options on which to operate systems that support their private, internal communications needs and it is unlikely that additional allocations will be made available for them in the future. Indeed, this broadband opportunity is based on the industry's willingness to repurpose spectrum already allocated for B/ILT use to address requirements beyond those that can be met on narrowband channels. But the need for narrowband operations will not be eliminated by the introduction of broadband, at least not

initially. Some 900 MHz incumbents may elect to migrate to broadband now; others will need to retain their narrowband systems for the foreseeable future.

There may be markets where the absence of more than a handful of B/ILT incumbents suggests that a 5/5 megahertz broadband channel could be a viable option more immediately. EWA does not oppose providing for that possibility in the rules, but those situations will need to be addressed on an individual basis unless and until there is a clear path to a full 900 MHz Band realignment to broadband.

C. The 800 MHz Guard Band Would Provide “Green Space” for 900 MHz Incumbents

On April 17, 2019, EWA filed a Petition for Rulemaking asking the FCC to designate the Part 90 800 MHz Guard Band (816-817/861-862 MHz) spectrum (“800 MHz GB”) as “green space” for the relocation of certain 900 MHz Band narrowband channels and for B/ILT incumbents operating on 470-512 MHz (“T-Band”) channels. It explained that the changes in both bands had been proposed long after the Commission determined in 2004 that the best use of the 800 MHz GB would be for Part 90-eligible entities generally.⁵ While these channels have been licensed already in some parts of the country, they remain unassigned in most locations where there is a significant number of 900 MHz incumbents in the proposed broadband segment.

This proposal was not made because of a concern that there would be insufficient 900 MHz narrowband channels to allow the broadband segment to be cleared. EWA has a solid understanding of incumbency in the band and is satisfied that the realignment proposed in the EWA/PDV Petition will accommodate both narrowband and broadband usage. It would not have endorsed this approach otherwise. Of course, as in all band repurposings, it will be the responsibility of whoever wishes to operate in the new configuration to reach agreements with incumbents whose channels must be exchanged, either on a purely voluntary basis or based on an

⁵ *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order, 19 FCC Rcd 14969 (2004).

obligation to provide them with comparable facilities and to assume all reasonable costs associated with the move. If that cannot be done, then the broadband segment cannot be cleared in that area.

EWA petitioned the Commission to create this green space for two reasons. First, there are 900 MHz incumbents that would prefer to move to the 800 MHz band, even to the 800 MHz GB, if channels were available. The greater level of activity in that band means that there is an expanded portfolio of equipment by comparison with 900 MHz, a trend that is only likely to increase. Second, it appears at present that the 800 MHz GB spectrum will be devoted primarily to a low-speed, narrowband Industrial Internet of Things (“IIoT”) network that Iota Networks, LLC (“Iota”) says it plans to build pursuant to licenses it holds and those held by individual and other investors who purchased their applications through an Iota-affiliated entity and whose channels Iota intends to lease.

Unraveling the relationships among Iota, License Acquisitions, LLC, Smartcomm, LLC, and the various other companies that appear to have overlapping ownerships and interests is not an easy task. For this purpose, however, EWA urges the FCC to be instructed by its recent Order involving License Acquisitions, LLC in which it found that the company had waited an “unreasonably long period of time” – 12 years – before attempting to rescind a commitment it had made to the Commission regarding its intended use of certain 800 MHz spectrum, a rescission the FCC concluded was based exclusively on the fact that License Acquisitions, LLC had elected to change its business plans.⁶ It would be most unfortunate if 800 MHz GB spectrum that could be used for the relocation of 900 MHz and T-Band incumbents, licensees that have invested in and are using systems to meet actual communications needs, instead becomes entangled in a business plan that may never ripen into an operational network and

⁶ *License Acquisitions, LLC*, WT Docket No. 02-55, Order, FCC 19-47 (rel. May 17, 2019).

instead goes the way of License Acquisitions, LLC. The public interest would be better served by reserving this spectrum for green space as proposed in the EWA Petition for Rulemaking.

D. The Transition Process Must Include Provisions Against Hold Outs

EWA agrees with the proposal in the NPRM that the 900 MHz Band transition process commence with a voluntary exchange process in which incumbents are free to negotiate with a prospective broadband licensee for whatever the parties determine is an acceptable arrangement.⁷ The EWA/PDV Petition recommended an initial period of voluntary negotiation. Yet, as acknowledged in the NPRM, an exclusively voluntary process inevitably will lead to a hold out problem. For all the reasons detailed in the PDV Comments, EWA urges the FCC to adopt a mechanism, preferably the “success threshold” proposed in the NPRM, to prevent incumbents from undercutting the FCC’s conclusion that, “High-speed broadband is essential for robust business growth , and providing an opportunity for broadband in the 900 MHz band could enable a wide variety of businesses to unlock the full potential of broadband and its applications.”⁸ There must be a point after which a prospective broadband applicant can require a blocking incumbent to exchange its channels for ones outside the broadband segment, with the proviso that the replacement channels provide comparable facilities and that all reasonable costs are paid by the prospective broadband licensee.⁹

E. Incentive Auctions are Not Well-Suited for Clearing 900 MHz for Broadband

The NPRM asks if the FCC should consider using an incentive auction to clear the proposed 900 MHz Band broadband segment. EWA thinks that such an auction would unduly complicate the transition process and is not optimally suited for this band. The 900 MHz Band is populated by a wide variety of users, some of which use the spectrum for private internal

⁷ The NPRM does limit frequency swaps to 1:1 exchanges of 900 MHz spectrum unless additional frequencies are needed to maintain coverage and/or capacity.

⁸ NPRM at ¶ 7.

⁹ EWA does not object to the proposal in the NPRM to exempt from any mandatory negotiation process the small number of systems classified by the FCC as particularly complex. NPRM at ¶ 38.

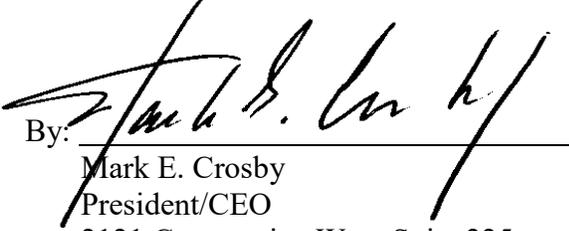
communications while others provide a commercial dispatch service. Some licensees have one or two channels at a single site. Others have multiple channels on networks that can involve many dozens of sites. Still others hold licenses for large geographic areas. In the Alliance's opinion, it is difficult to see how an incentive auction would work effectively in such a disjointed spectrum landscape. EWA recommends that the Commission utilize this additional auction tool in bands where there is greater comparability among licenses.

III. CONCLUSION

EWA urges the Commission to adopt rules that allow for both broadband and narrowband systems in the 900 MHz Band, consistent with the recommendations herein and in the PDV Comments. By creating a flexible use allocation, the FCC will enable users to select the system configuration that best serves their particular needs today, while providing a voluntary path for migration to broadband technology as its benefits and the industry's use cases evolve over time

Respectfully submitted,

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